

NOVEL AROMATIC AZIDES FOR TYPE I PHOTOTHERAPY

ABSTRACT

The present invention discloses novel aromatic azide derivatives and their bioconjugates for phototherapy of tumors and other lesions. The organic azides of the present invention are designed to absorb low-energy ultraviolet, visible, or near-infrared (NIR) region of the electromagnetic spectrum. The phototherapeutic effect is caused by direct interaction of nitrene, the reactive intermediate produced upon photoexcitation of the aromatic azide, with the tissue of interest. The compounds of the present invention are administered to a patient, allowed to accumulate at the site of the tumor or other lesion, and are exposed to light in order to perform a phototherapeutic procedure.